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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHANNON, MICHAEL R

ART UNIT PAPER NUMBER

2614

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/770,766

Applicant(s)

PAZ ET AL.

Examiner

Michael R. Shannon

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-29 and 45-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-29 and 45-47 is/are rejected.
- 7) ☒ Claim(s) 45-47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20050901</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments; see pages 5-9, filed September 1, 2005, with respect to the rejection(s) of claim(s) 27-29 under 35 USC §102(e) as being anticipated by Gardell et al (USPN 6,049,831) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hooper et al (USPN 5,493,638), cited by Applicant, and Moeller et al (USPN 5,828,370), newly cited by Examiner.

The Examiner expresses appreciation for the significant claim amendments, which were thoroughly discussed in the interview on August 24, 2005, and the recently filed IDS dated September 1, 2005.

### ***Claim Objections***

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 44-46 have been renumbered 45-47. Claim 44 is presently cancelled in this amendment. It is an apparent typographical error that the first new claim was numbered 44. As noted, the claims have been renumbered 45-47 and the

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Examiner requests the Applicant correct this typo in future communications with the Office.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 27-28 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardell et al (USPN 6,049,831), previously cited by Examiner, in view of Hooper et al (USPN 5,493,638), cited by Applicant.

Regarding claim 27, the claimed "system wherein a client interactive TV system accesses and runs one or more programs remotely at a server and wherein the server converts display commands generated from the one or more programs into compressed video streams, a method for enabling a client to access TV channel programming via interaction with the one or more programs" is met as follows:

- The claimed step of "receiving, at a client interactive TV system [met by STB 118], a compressed video stream [met by path 138] representing a WWW page [met by Web pages] that identifies one or more TV channels [met by EPG], wherein the WWW page is converted [in the Client Interface 112] to a compressed video stream and transmitted to the interactive TV by a remote server [met by Server 114]" is met by the teachings of

Gardell, which teach that a client interface 112 translates Web pages into MPEG I-frames for transmission over path 138 [col. 4, lines 49-52]. The Web page is translated from HTML to MPEG format, transmitted over the transmission path 138, and subsequently received by the user at the STB for Interactive TV 118 [col. 4, lines 29-30]. The EPG (which is an example of a service running based on this process) contains links to television programming from within the user interface [col. 9, lines 14-27].

- The claimed step of “receiving with the WWW page that was converted to a compressed video stream, an overlay of additional compressed video data, wherein the client interactive TV system decompresses and displays the WWW page and the overlaid additional compressed video data” is partially met by the Gardell reference. As discussed above, the Gardell reference teaches that the displayable portions of the WWW page are received in MPEG I-frame form over path 138 at the STB 118 [col. 4, lines 29-30 & lines 49-52]. However, the Gardell reference teaches that the HTML UI definitions that are stripped out of the displayable WWW page [col. 4, lines 24-32] are sent in HTML UI definition form (not MPEG I-frame form) over path 134 [col. 4, lines 49-52]. This functionality runs contrary to the claim that the additional data is compressed and received with the WWW page and overlaid on the displayable MPEG I-frame WWW page upon receipt. This point of contention has already been discussed and agreed upon during the interview and the arguments presented by the

Applicant. Therefore, the Examiner relies on Hooper, wherein he teaches background images and interactive overlay images that are compressed together at the server and sent to an interactive set-top box for implementation of a graphical user interface. More specifically, the Hooper reference teaches a dialog image 28, which consists of a background image 30 and one or more overlay images 32. Overlay images, as described, are interactive in nature and overlay the main background image [col. 5, lines 39-50]. The dialog image is created through encoding and compressing both the background image and the overlay images [col. 6, lines 54-67]. The background image (I-frame) and the overlay images (P-frames) are sent via the video data stream 24 to the set-top box 18 [col. 7, lines 51-53]. The set-top box 18, upon receiving the dialog image 28 decodes the background and overlay images for display at display 104 [col. 7, lines 57-65]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize compressed MPEG I and P-frame images for the background and for interactive overlays stored at the server for implementation of a graphical user interface, in order to implement a graphical user interface without the necessity of storing images or drawing software on the set-top box [col. 2, lines 48-57]. Furthermore, the system takes advantage of video compression to carry out robust navigation in a graphical user interface

while conserving video bandwidth on the communication channel [col. 4, lines 3-7].

- The claimed step of “detecting an interaction of a user with at least some of the additional compressed video data that indicates a selection of one of the identified one or more TV channels” is met by the HTML UI state change notification being received from the STB 118 on the UI state change line 130 based on user selection of a link in the MPEG encoded WWW page [Gardell, col. 4, lines 9-17]. Hooper also suggests that the system is interactive and therefore, transmits a message on the control data stream 26 that identifies the keystroke in order to command the server to change the screen appropriately [Hooper, col. 3, line 50 – col. 4, line 2 & col. 6, lines 19-21].
- The claimed step of “providing the user interaction to the remote server, which converts the user interaction into a format that can be assimilated by the one or more programs running at the remote server” is met by the ability for the session manager 154 of the Gardell reference to respond to UI state change notifications received from the STB 118 on the UI state change line 130 and subsequently present new image information over paths 134 and 138 [col. 4, lines 9-18]. As discussed before, the Hooper reference also suggests that the system is interactive in nature and therefore, transmits a message on the control data steam 26 and invokes application program (at the server) associated with the currently highlights

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control object if the keystroke identifier represents a select command to be carried out by the computer (server) [col. 3, line 46 – col. 4, line 2].

- The claimed step of “in response to the user interaction, receiving and displaying the selected one of the identified TV channels on said client interactive TV system” is, again, met by the ability for the session manager 154 of the Gardell reference to respond to UI state change notifications received from the STB 118 on the UI state change line 130 and subsequently present new image information (in other words, new channels being selected through the EPG – as column 9, lines 14-27 point out) over paths 134 and 138 [col. 4, lines 9-18].

Regarding claim 28, the claimed “method according to claim 27, wherein said TV channel comprises a pay-on-demand movie” is met by the VOD service, which can be implemented using the same GUI platform in MPEG form, providing the client with access to VOD content [Gardell, col. 8, lines 40-52].

Regarding claim 45 [previously 44, see above Claim Objections], the claimed “method as recited in claim 27, wherein the server includes a first computer that runs the one or more programs and a second computer that converts resulting display commands into compressed video” is met by the fact that the Hooper reference teaches a video/image workstation 12 and a gateway workstation 14. Each workstation can be independently optimized for maximum performance [col. 5, lines 17-30]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize two computers at the server, in order to maximize performance of the server. The Examiner



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also cites *Nerwin v. Erlichman*, 168 USPQ 177, 179, which teaches that it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. Therefore, the separation of the server computer into two workstations is not patentable over a server computer using only one workstation.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 29 and 46-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Moeller et al (USPN 5,828,370), cited by Examiner.

Regarding claim 29, the claimed "system wherein a client system [met by set top box 57] accesses and runs one or more programs [met by the plurality of video streams] remotely at a server [met by media server 50] and wherein the server converts display commands generated from the one or more programs into compressed video streams [met by the compressed video streams], a method for enabling a client to modify the compressed video stream" is met as follows:

- The claimed step of "at the server that is remote from a client and that runs one or more programs for the client, providing a first compressed

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video stream representing a TV channel” is met by the media server 50 transferring a plurality of compressed video streams to the set top box 57 for display thereon [col. 6, lines 32-33, lines 47-48, and col. 6, line 67 – col. 7, line 2].

- The claimed step of “overlaying on said first compressed video stream a second compressed video stream representing an interaction layer that includes at least one control that corresponds to modifications that can be made to the first compressed video stream, the second compressed video stream being overlaid on said first compressed video stream without decompressing the first compressed video stream wherein the TV channel and the at least one control are displayed at the client system upon the client system receiving and decompressing the first and second compressed video streams” is met by graphical icon 54, which is overlaid on the compressed video stream coming from the media server 50. As column 7, lines 58-61 disclose, the graphical icon 54 is provided directly by the video server 50 in conjunction with the movie video stream being output. Since the movie video stream is output in a compressed format, this means that the graphical icon 54 is output in conjunction with the compressed video and is also in compressed format. Subsequently, the video and the graphical icon 54 are both decompressed via the video decompressor and displayed at the STB 57 [col. 7, line 9].

- The claimed step of “receiving input from a viewer comprising interaction with said control” is met by the user manipulation of the knob 55 within slider bar 54 (the graphical icon) [col. 7, lines 34-35].
- The claimed step of “converting said input from the viewer into a format that can be assimilated by the one or more programs running at the server” is met by the calculations being performed based on user input and provides this information back to the video server 50 [col. 7, lines 34-42]. The media server 50 receives the calculated value and uses it to output the video stream at a new position based on the user manipulation of the slider bar knob 55 [col. 12, lines 21-24].
- The claimed step of “modifying at least said first compressed video stream responsive to said received interaction by at least one of: changing a channel over which the client system receives compressed video and such that the client receives new compressed video, or providing the client access to a different set of P frames than were originally provided in the first compressed video stream” is met by the background information discussion of the fact that standard VOD systems utilize fast forward and fast reverse streams. Once the user selects to either fast forward or fast reverse, the trick play stream is transferred to the user at the appropriate point where the user was watching, instead of the normal play stream [col. 3, lines 41-45]. In other words, the system provides a new channel

(comprising the fast forward or fast reverse stream) that simulates the act of fast forwarding or reversing through the compressed video.

Regarding claim 46, the claimed “method as recited in claim 29, wherein modifying at least said first compressed video stream responsive to said received interaction includes modifying said second compressed video stream” is met by the fact that the media server 50 provides the updated slider bar 54 to reflect the current position of the movie being displayed [col. 7, lines 64-67]. Furthermore, though explained with reference to the embodiment wherein the slider bar is not sent in conjunction with the movie video stream being output, the set top box 57 updates the location of the slider bar knob 55 to the position where the video stream or movie is being played. Thus the slider bar knob 55 provides an indication of the relative portion of the movie, which has been played [col. 11, lines 59-63].

Regarding claim 47, the claimed “method as recited in claim 29, wherein the different set of P frames are provided with other new sets of P frames corresponding to different users through a common channel” is met by the Moeller reference indexing P-frames at different locations or positions in a normal play video stream, generally based on user selections [col. 8, lines 55-57] and displaying the normal play or trick play streams to one or more display units or viewers 52 [col. 8, lines 45-48]. The fact that there is a plurality of viewers sharing a video stream over a common channel inherently teaches that they would be sharing the P frames of the video stream just as in normal video broadcast delivery.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon who can be reached at (571) 272-7356 or Michael.Shannon@uspto.gov. The examiner can normally be reached by phone Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

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Michael R Shannon

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Examiner  
Art Unit 2614

Michael R Shannon  
November 3, 2005



JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
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